

WHAT IS CLAIMED IS:

1. A rotational supporting mechanism, in which a main body and a cover are superposed to be closed, and, from the closed position, the cover is rotated 180 degrees 5 in a planar direction in which they are superposed as such, and is stopped at the 180-degree rotated open position, the rotational supporting mechanism comprising:

an eccentric cam rotating eccentrically with respect to said planar direction, said eccentric cam having 10 a portion corresponding to the closed position at one rotational position with maximum eccentricity on a cam surface and a portion corresponding to the open position at the other position with minimum eccentricity on the cam surface, the positions being 180-degree opposite to each 15 other; and

a pressing means, which presses the cam surface of the eccentric cam by setting a pressing direction to the same direction as that connecting both of the portion corresponding to the closed position and the portion 20 corresponding to the open position, the portions being 180-degree opposite to each other through the axis of the eccentric cam, a pressing load applied to, and rotation control over the eccentric cam being increased to stop rotational movement of the eccentric cam when the pressing 25 means is fitted to the portion corresponding to the closed

position on the cam surface, while, the pressing load applied to the eccentric cam being reduced as the pressing means approaches a side of the portion corresponding to the open position, the rotation control over the eccentric cam being increased to stop the rotational movement of the eccentric cam when the pressing means is fitted to the position corresponding to the open position, wherein

one of the eccentric cam and pressing means is attached to the main body, while the other of the eccentric cam and pressing means is attached to the cover so that the cover is rotationally supported.

2. A rotational supporting mechanism according to claim 1, wherein, when the portion corresponding to the open position on the cam surface of the eccentric cam is fitted to the pressing means, a control means for controlling excessive rotation beyond the position corresponding to the open position in the same direction as that in which the eccentric cam is rotated 180 degrees to the open direction is provided.

3. A rotational supporting mechanism according to claim 1, wherein the eccentric cam has a recess corresponding to the closed position at one point with maximum eccentricity on the eccentrically rotating cam surface, to which a protruding portion of the pressing means is fitted, and has a recess corresponding to the open

position at one point with minimum eccentricity, to which the protruding portion of the pressing means is fitted.

4. A rotational supporting mechanism according to claim 1, wherein the pressing means is equipped with an elastic member, a pressing direction of which is set to the same direction as that connecting both of the portions corresponding to the closed and open positions, which are determined through the axis of the eccentric cam, said portions being 180-degree opposite to each other, and a following member moving back and forth in the pressing direction, based on a pressing force that it receives from the elastic member, to follow along the cam surface of the eccentric cam.

5. A rotational supporting mechanism according to claim 1, wherein the pressing means is equipped with a pressing spring, a pressing direction of which is set to the same direction as that connecting both of the portions corresponding to the closed and open positions, which are determined through the axis of the eccentric cam, said portions being 180-degree opposite to each other, a pressing piece moving back and forth in the pressing direction by receiving the pressing force of the pressing spring, and a pressing roller axially supported on the pressing piece in a manner so as to be freely rotatable, and pressing against the cam surface of the eccentric cam

integrally with the pressing piece by receiving the pressing force of the pressing spring.

6. A rotational supporting mechanism according to claim 2, wherein the control means is provided with a 5 rotation disc that rotates left or right in the planar direction, an interlocking piece that rotates with the rotation disc in the same rotational direction by receiving the rotational force of the rotation disc, and position control portions for controlling excess rotation of the 10 interlocking piece, where the interlocking piece, which rotates left or right with the rotation disc, would rotate beyond the portion corresponding to the open position of the eccentric cam.

7. A rotational supporting mechanism according to 15 any one of claims 1-6, wherein swing preventing portions for preventing the cover from staggering are provided on opposite and superposed surfaces of the main body and the cover in proximity of an axially supporting portion that joins both of the main body and the cover in the direction 20 of superposition to axially support them.

8. A rotational supporting mechanism according to claim 7, wherein, when the cover is rotated 180 degrees to be located at the open position from the closed position, 25 bosses as the swing preventing portions are formed on the opposite and superposed surfaces of the cover and the main

body in a manner such that the protruding bosses on both the opposite surfaces are butted against each other.

9. A rotational supporting mechanism according to claim 7 or 8, wherein, in the swing preventing portions, a plurality of butting portions of the bosses are dotted, and positions of these respective butting portions are dotted in a manner so as to have different radial distances from an axis of the eccentric cam as their center, and so as not to be present concentrically.

10 10. A rotational supporting mechanism according to claim 8 or 9, wherein the main body and the cover are superposed and opposed at the closed position, and when the eccentric cam is turned 180 degrees with its axis as the center so that the main body and the cover are extended 15 straight, of a tip end side portion and a basal end side portion of the main body and the cover, bosses are formed at positions on the basal end side portion thereof.

11. A rotational supporting mechanism according to any one of claims 1-10, wherein, in the pressing means, an 20 inclined guide portion, in which a base is placed on an upper surface of the main body, a pressing piece, which is urged toward the base by pressing springs, is pressed against the side of the eccentric cam and guided in a sliding manner so as to go back and forth freely, and both 25 of contact guide portions of the pressing piece and the

base are inclined from each other, is provided on both sides in the widthwise direction of the pressing piece.

12. A rotational supporting mechanism according to claim 11, wherein the pressing means has the inclined guide portion on both sides in the widthwise direction of the pressing piece, and a central sliding guide portion formed of an axis portion provided at a central portion in the widthwise direction of the pressing piece and a sliding guide groove formed on the base, a concave portion of which 5 is fitted to the axis portion along the sliding direction.

13. A mobile terminal using a rotational supporting mechanism of any one of claims 1 to 12.